

4. (Amended) The method according to [any of the preceding claims] claim 1, wherein said individual unit of point (i) comprises following structure: catalyst molecule - flexible linker - substrate.

02
5. (Amended) The method according to [any of the preceding claims] claim 1, wherein said individual unit of point (i) in claim 1 comprises following structure: catalyst molecule - carrier system - substrate, or more preferably the structure: catalyst molecule - carrier system - flexible linker - substrate.

6. (Amended) The method according to claim [2 and] 4, wherein said carrier system of claim 4 within said biologically amplifiable individual unit [of claim 2] is a phage.

03
8. (Amended) The method according to [any of] claim[s] 1 [to 7], wherein said library of catalyst molecules is a library of natural or unnatural peptides or polypeptides, preferably a library of enzymes.

04
11. (Amended) The method according to [any of] claim[s] 8[10], wherein said library is a library comprising shuffled/recombined/doped polypeptides.

12. (Amended) The method according to claim[s] 1 [to 7], wherein said library of catalyst molecules is a library of natural or unnatural nucleic acids.

15. (Amended) The method according to [any of] claim[s] 12 [to 14], wherein said library of nucleic acids is a library comprising shuffled/recombined/doped nucleic acids.

05
16. (Amended) The method according to [any of] claim[s] 1 [to 7], wherein said library of catalyst molecules is a library comprising natural polymers molecules, or unnatural polymers molecules, or small organic molecules, or small inorganic molecules or a mixture of said molecules.

a6 18. (Amended) The method according to [any of the preceding claims] claim 1, wherein the catalyst molecules and the substrate capable of being catalysed into a product (point (i) in claim 1) are of a different chemical substance.

22. (Amended) The method for *in vitro* selection according to [any of the preceding claims] claim 1, wherein the selecting for a catalyst molecule of interest, in step (ii) of claim 1, is done by specific immobilization to said product molecule.

a7 23. (Amended) The method for *in vitro* selection according to [any of the preceding claims] claim 1, wherein the selecting for a catalyst molecule of interest, in step (ii) of claim 1, is done by the following strategy,

- (i) constructing a system wherein substantially each of the individual units in step (i) of 1 comprising the substrate molecule and the catalytic molecule is bound to a matrix and wherein the unit is released from said matrix when the substrate is converted into the product; and
- (ii) selecting for the unit(s) which are released from said matrix.

24. (Amended) The method for *in vitro* selection according to [any of the preceding claims] claim 1, wherein the selecting for a catalyst molecule of interest (step (ii) of claim 1), is done by following strategy,

- (a) constructing a product-column wherein a receptor specifically binding the product is placed along the matrix of the product-column; and
- (b) adding the sample of individual units at one end of the product-column and selecting for the catalyst molecules of interest by isolating the individual unit(s) which arrive(s) latest to the opposite end on the column.

a8 27. (Amended) A method for producing a catalyst molecule of interest comprising performing the method for *in vitro* selection according to [any of] claim[s] 1[-18] and the further following step,

- (a) producing said isolated catalyst molecule of interest in a suitable quantity of interest by a suitable production method.